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B. In the Claims

Please cancel claims 1 to 11 without prejudice, and add new claims 12 to as shown below. Upon entry of the present amendment, the status of the claims will be as follows:

1 to 11. Cancelled

- 12. (New) A method of detecting methylation of a p16 gene, comprising:
- a) contacting a sample comprising nucleic acid molecules, with oligonucleotide primers that permit amplification of a polynucleotide sequence comprising exon 1 of the p16 gene and of a polynucleotide sequence comprising exon 2 of the p16 gene, under conditions suitable for a nucleic acid amplification reaction; and

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- b) analyzing the amplification reaction for amplification products, wherein the presence of an amplification product comprising exon 2 of the p16 gene and the absence of an amplification product comprising exon 1 of the p16 gene indicates the p16 gene is methylated, thereby detecting methylation of the p16 gene.
- 13. (New) The method of claim 12, wherein the oligonucleotide primers that permit amplification of a polynucleotide comprising exon 2 of the p16 gene further permit amplification of polynucleotide comprising 5'ALT.
 - 14. (New) The method of claim 12, wherein the sample comprises a sample of a human.
- 15. (New) The method of claim 12, wherein the sample comprises a biological fluid, cells, or a tissue.
- 16. (New) The method of claim 12, wherein methylation of the p16 gene is indicative of a neoplasm.

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- 17. (New) The method of claim 16, wherein the neoplasm is head and neck cancer, breast cancer, renal cancer, colon cancer, or prostate cancer.
 - 18. (New) The method of claim 12, wherein the nucleic acid molecules comprise RNA.
- 19. (New) The method of claim 18, wherein the amplification reaction comprises reverse transcription and polymerase chain reaction.
- 20. (New) A kit, comprising oligonucleotide primers that permit amplification of a polynucleotide comprising exon 1 of a p16 gene and exon 2 of the p16 gene.
- 21. (New) The kit of claim 20, comprising a first forward primer that permits amplification of exon 1 of the p16 gene, a second forward primer that permits amplification of exon 2 of the p16 gene, and at least one reverse primer.
- 22. (New) The kit of claim 21, comprising one reverse primer, which permits amplification of exon 1 of the 16 gene and exon 2 of the p16 gene.
- 23. (New) The kit of claim 21, comprising a first reverse primer that permits amplification of exon 1 of the p16 gene and a second reverse primer that permits amplification of exon 2 of the p16 gene.
- 24. (New) The kit of claim 20, wherein the oligonucleotide primers that permit amplification of a polynucleotide comprising exon 2 of the p16 gene further permit amplification of a polynucleotide comprising 5'ALT.